

CLAIMS

1. An electronic component for connection to a telecommunications network and data exchange in accordance with at least a part of Internet protocols comprising an integrated monolithic component constituted by a DSP (Digital Signal Processor) architecture including at least one memory in which is loaded a program implementing the Internet protocols including routines for message handling, FTP download and/or Web server functionalities, said DSP architecture further comprising means for exchange of data on a network.
2. The component according to Claim 1, wherein the component includes means for exchanging data on a switched telephone network.
3. The component according to Claim 1, wherein the component includes means for exchanging data on a local radio network.
4. The component according to Claim 1, wherein the component includes means for exchanging data on an Ethernet network.
5. The component according to Claim 1, wherein the component includes means for exchanging data on an electric network.
6. The component according to Claim 1, further comprising an analogue/digital conversion component for connection with a telecommunications network.

7. The component according to Claim 1, further comprising at least one memory of at least about 8 kilo-words in which is loaded a program implementing the Internet protocols, including routines for message-handling, FTP download and/or Web server functionalities.

8. The component according to any one of Claims 2 to 7, further comprising a single buffer in each transmission direction for data preparation according to PPP, IP, and TCP standards, and a buffer memory for intermediate calculations.

9. The component according to Claim 1, further comprising a protocol array and supervision layer software which:

- converts data, exchanged in both transmission directions by the DSP with the equipment in which it is integrated, into data contained within messages exchanged with a remote system through the Internet, and generates outgoing calls automatically to an Internet service provider for sending an electronic message or verifying possible receipt of an electronic message.

10. The component according to Claim 1, wherein the supervision layer confirms that a datum has been sent to a remote system, by using acquittal messages, and by generating callbacks to the Internet service provider, where necessary.

11. The component according to Claim 1, further comprising means for an implementing of at least one of the following protocols:

NAT (Network Address Translation) to implant an IP address conversion function between different addresses of an internal network equipment and a single IP address of this network seen from the Internet (router function),

DHCP (Dynamic Host Configuration Protocol), which allows an IP address to be assigned dynamically to each piece of internal network equipment, and

to perform a gateway function.

12. Communication equipment comprising a calculator, connection means to a telephone network and keyboarding and display means, wherein the connection means includes an integrated monolithic electronic component for connection to a telecommunications network and for exchanging data with at least a part of Internet protocols, wherein the component includes a DSP (Digital Signal Processor) type architecture.

13. A process for adapting a piece of telecommunications equipment fitted with a DSP calculator controlling modem functions comprising:

loading a memory of said DSP calculator with a program including routines for the message-handling, FTP download and/or Web server functionalities.

14. A process for processing digital data by a DSP processor according to Claim 13, wherein a TCP header, an IP header and a PPP header are calculated by storing intermediate data in a single working memory and a single calculation buffer memory.